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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,254

12/15/2003

Phil Hsieh

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02/23/2005

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EXAMINER

HSU, JONI

ART UNIT

PAPER NUMBER

2676

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,254	Applicant(s) HSIEH, PHIL	
	Examiner Joni Hsu	Art Unit 2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patrick (US006026239A) in view of Baldwin (US005764243A), further in view of Bates (US006707457B1).

4. With regard to Claim 1, Patrick describes a method for accelerating 2D graphics (Col. 1, lines 17-18) in a computer system (Col. 1, lines 13-18), the computer system executing graphic commands, each graphic command having operation of source pixel, pattern or destination pixel

(Col. 13, lines 7-21), the computer system using a graphic device interface (GDI) (54, Figure 2) to transfer corresponding graphic command to a 2D graphic device driver (46), the 2D graphic device driver setting the graphics engine (56) based on the graphic command transferred by the graphic device interface (GDI) such that the graphics engine performs the graphic command with respect to what was set by the 2D graphic device driver (Col. 5, lines 28-35), the method comprising a graphic command receiving step, which uses the 2D graphic device driver to receive the graphic command from the graphic device interface (GDI) (Col. 5, lines 28-35). Patrick describes that if required, the code will convert the source bytes to the color format of the destination; and if required, the code will call a raster operation function to perform a raster operation to apply a pattern to the converted source bytes or to the bytes in the destination (Col. 10, lines 5-9). Patrick describes that the ROP might transfer only the pattern and not the source pixel (Col. 13, lines 18-19). If only the pattern of the graphic command is colored, then inherently only the pattern is transferred. If source pixel and pattern of the graphic command are both colored, then the ROP combines the source pixel and the pattern (Col. 13, lines 7-21). Therefore, there must inherently be a graphic command determining step, which uses the 2D graphic device driver to determine whether source pixel and pattern of the graphic command are both colored. If source pixel and pattern of the graphic command are both colored, then the ROP combines the source pixel and the pattern (Col. 13, lines 7-21). This combining includes a copying step, which performs a copy procedure for copying memory corresponding to the source pixel or the pattern, and converting its color when the source pixel and the pattern are both colored (Col. 13, lines 7-24; Col. 10, lines 5-9); and a graphic command executing step, which uses the 2D graphic device driver to set the graphics engine to execute the graphic command

(Col. 5, lines 28-35) according to the copied source pixel or pattern, the original source pixel or pattern, and the destination pixel (Col. 13, lines 22-46; Col. 10, lines 10-11).

However, Patrick does not teach that the computer system including a graphic chip having a command register to execute graphic commands, the 2D graphic device driver setting the command register of the graphic chip based on the graphic command such that the graphic chip performs the graphic command with respect to the command register set by the 2D graphic device driver. However, Baldwin describes a method for accelerating 2D graphics in a computer system, the computer system including a graphic chip (Col. 1, lines 15-17; Col. 7, lines 54-60) having a command register to execute graphic commands (Col. 13, lines 46-65), each graphic command having operation of source pixel, pattern or destination pixel (Col. 41, lines 16-49; Col. 64, lines 5-9), the 2D graphic device driver setting the command register of the graphic chip (Col. 13, lines 18-31) based on the graphic command such that the graphic chip performs the graphic command with respect to the command register set by the 2D graphic device driver (Col. 13, lines 46-65), the method comprising a graphic command executing step, which uses the 2D graphic device driver to set the command register of the graphic chip for executing the graphic command according to the copied source pixel or pattern, the original source pixel or pattern, and the destination pixel (Col. 11, lines 5-15; Col. 52, line 26-Col. 53, line 7; Col. 63, lines 20-65).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the device of Patrick so that the computer system includes a graphic chip having a command register to execute graphic commands, the 2D graphic device driver setting the command register of the graphic chip based on the graphic command such that the graphic

chip performs the graphic command with respect to the command register set by the 2D graphic device driver as suggested by Baldwin. It would have been obvious to include a graphic chip because graphic chips are used on graphics boards, and graphics boards are needed in order for users to interact with images on the monitor. Graphic chips are well-known in the art, widely used, and found in many publications, such as the PC World website. Baldwin describes that command registers are needed in order to program the graphic chip to draw a primitive (Col. 13, lines 28-30).

However, Patrick and Baldwin do not teach that the copying step includes expanding the source pixel or the pattern's color. However, Bates describes a method for accelerating 2D graphics in a computer system, the computer system executing graphic commands (Col. 10, lines 1-14), each graphic command having operation of source pixel, pattern or destination pixel, the method comprising a copying step, which performs a copy procedure for copying memory corresponding to the source pixel or the pattern, and expanding its color (Col. 6, lines 59-67; Col. 10, lines 24-35).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the devices of Patrick and Baldwin so that the copying step includes expanding the source pixel or the pattern's color as suggested by Bates because Bates describes that color expansion consists of expanding from 1 bit per pixel to N bits per pixel, where N is the destination bits per pixel (Col. 6, lines 59-67). In other words, color expansion is needed in order to properly copy the source to the destination.

5. With regard to Claim 2, Patrick describes that the ROP might transfer only the pattern and not the source pixel (Col. 13, lines 18-19). If only the pattern of the graphic command is colored, then inherently only the pattern is transferred. Therefore, if the graphic command determining step determines that the source pixel and pattern of the graphic command are not both colored, then the source pixel and pattern are not combined (Col. 13, lines 7-21) and the converting step is skipped (Col. 10, lines 5-11). Therefore, the graphic command executing step is immediately performed.

6. With regard to Claim 3, Patrick does not teach that the graphic command is a ROP3 command. However, Bates describes that the graphic command is a ROP3 command (Col. 16, lines 54-67).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the device of Patrick so that the graphic command is a ROP3 command as suggested by Bates. ROP3 commands have the advantage of combining a brush, a source bitmap, and a destination bitmap in one of 256 possible combinations. ROP3 commands are well-known in the art, widely used, and found in many publications, such as Microsoft's website.

7. With regard to Claim 4, Patrick describes that the copying step copies the source pixel to convert color of the source pixel (Col. 3, lines 20-36).

However, Patrick does not teach that the copying step copies the source pixel to expand color of the source pixel. However, Bates describes that the copying step copies the source pixel

to expand color of the source pixel (Col. 6, lines 59-67; Col. 10, lines 24-35), as discussed in the rejection for Claim 1.

8. With regard to Claim 5, Patrick describes that the copying step copies the pattern to convert color of the pattern (Col. 3, lines 20-36; Col. 10, lines 5-11; Col. 13, lines 22-26).

However, Patrick does not teach that the copying step copies the pattern to expand color of the pattern. However, Bates describes that the copying step copies the pattern to expand color of the pattern (Col. 6, lines 59-67; Col. 10, lines 24-35), as discussed in the rejection for Claim 1.

9. With regard to Claim 6, Claim 6 is similar in scope to Claim 1, except that Claim 6 is for a system. Therefore, Claim 6 is rejected under the same rationale.

10. With regard to Claim 7, Claim 7 is similar in scope to Claim 3, except that Claim 7 is for a system. Therefore, Claim 7 is rejected under the same rationale.

11. With regard to Claim 8, Claim 8 is similar in scope to Claim 4, except that Claim 8 is for a system. Therefore, Claim 8 is rejected under the same rationale.

12. With regard to Claim 9, Claim 9 is similar in scope to Claim 5, except that Claim 9 is for a system. Therefore, Claim 9 is rejected under the same rationale.

Prior Art of Record

“Graphics Accelerator”, http://www.webopedia.com/TERM/graphics_accelerator.html.

Strauch, Joel; “How It Works: Graphics Boards”; October 9, 2000;

<http://www.pcworld.com/howto/article/0,aid,31050,00.asp>.

“Microsoft Windows CE Graphics Features”,

<http://www.microsoft.com/technet/prodtechnol/wce/evaluate/graphics.mspx>.

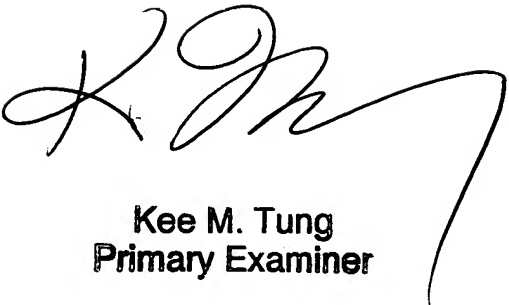
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joni Hsu whose telephone number is 703-305-4418. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Matthew C. Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JH



Kee M. Tung
Primary Examiner